Washington State Navigator Resource Allocation Assessment

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Preliminary 2nd Draft – For Discussion Only

Washington Navigators: Resource Allocation Assessment

The purpose of this report is to analyze the population of Washington residents who are likely candidates for Navigator assistance. This analysis can help determine how Navigator programs should geographically focus their efforts and allocate resources or funding.

Methodology

Unless noted otherwise, the primary source of information used to conduct this analysis was the 2010 American Community Survey (ACS) 5-year estimate. The ACS is administered by the U.S. Census Bureau, and we believe it is the most reliable and relevant source of information by county for our Navigator resource allocation assessment.

Federal Poverty Level (FPL)

Household income data for Washington and the state's 39 counties were derived from the 2010 American Community Survey (ACS) 5-year estimate. We examine three significant Federal Poverty Levels (FPL): 138% FPL, 250% FPL, and 400% FPL. These particular levels were chosen based on their potential relevance to Navigator programs. Assuming that Navigators will serve both Medicaid/CHIP eligible and Exchange individuals, these categories can give us insight into the level of assistance needed. We are making an assumption that individuals who apply for Cost-Sharing Reductions (from 100-250% FPL) will need more assistance than individuals whose income is above 250% FPL. We are also assuming that those who qualify for premium assistance (under 401% FPL) will require more assistance from Navigators than those who are above 400% FPL.

Due to the fact that the ACS provides household income levels based on survey results from 2006-2010, we based our analysis on 2010 Federal Poverty Levels. The following table shows different FPLs based on number of people in a family, sourced from the Department of Health and Human Services.

The 2010 Poverty Guidelines for the 48 Contiguous States and the District of Columbia

Persons in family	Poverty guideline
1	$10,830
2	14,570
3	18,310
4	22,050
5	25,790
6	29,530
7	33,270
8	37,010
For families with more than 8 persons, add $3,740 for each additional person.	

(source: http://aspe.hhs.gov/poverty/10poverty.shtml)

The ACS household income data do not distinguish size of household. While we acknowledge that this lack of distinction means that the actual number of households categorized by FPL group would differ from the numbers presented in our analysis, we believe that the *relative* numbers of households in each FPL category across counties and regions in Washington would most likely be very close to the numbers we present here. The ACS notes that the average Washington household has 2.5 people and that the average family in Washington consists of 3.1 people. Using this information, we conservatively assumed that all Washington households contained 3 people and calculated FPL accordingly. The HHS poverty guideline information listed above indicates the FPL for 3 individuals is $18,310. We assumed 138% of FPL to be $25,000, 250% of FPL to be $50,000, and 400% of FPL to be $75,000. While these can be viewed as rough assumptions, the ACS provides income data by county for specific income brackets. Our analysis focuses on proportions and these assumptions will not affect outcomes.

Uninsured

The number of individuals in each county that do not have health insurance was derived from the 2010 American Community Survey 3-year estimate. The ACS did not begin collecting health insurance coverage information until 2008, and therefore the 2010 3-year estimate was used.

Unfortunately, health insurance coverage data was only available for 30 of Washington's 39 counties, due to small sample sizes in the 9 least populous counties. However, an estimate for the total number of uninsured in Washington was presented, and therefore through subtraction we were able to determine the estimated number of uninsured for the 9 counties in total. We analyzed these 9 counties as a group labeled "Remaining 9 Counties", which includes Adams, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, San Juan, Skamania, and Wahkiakum counties.

Analysis

An analysis of population, household income level, the number of uninsured, and additional factors may help determine the portion of Washington's Navigator resources that a county should receive. It can be argued that population is the most basic measure, that it can be measured by readily available data, and therefore Navigator resources can be allocated based simply on a county's portion of the State's population.

We have created two indices to help analyze whether Navigator resources should be distributed to counties simply based on population or whether additional measures should be used to determine resource allocation.

Simple Needs Based Index
A Simple Needs-Based Index provides a measure of the Washington population that likely requires the most Navigator assistance. For this index, we used what we consider to be the two strongest indicators of need for education and outreach about the new coverage programs available under ACA and for help in applying for eligibility and enrolling in health plans. This index is calculated by applying an equal weighted average of population count below 251% FPL and uninsured population:

Component	Weight	Definition
1. Population below 251% FPL	50%	Household population below 251% FPL in county
2. Uninsured	50%	Population that is uninsured

The Simple Needs-Based Index for each county is calculated in the following manner:

$$\frac{(\text{Population below 251\% FPL} * 50\%) + (\text{Uninsured} * 50\%)}{(\text{WA Population below 251\% FPL} * 50\%) + (\text{WA Uninsured} * 50\%)} \times 100$$

Broad Needs Based Index
The Broad Needs-Based Index is an expanded measure of the need for Navigators. The following four components and weights are used to calculate the index:

Component	Weight	Definition
1. Population	20%	Household population in county
2. Population below 401% FPL	40%	Household population below 401% FPL in county
3. Uninsured	40%	Population in county that is uninsured

Based on the above weights, the Broad Needs Based Index for each county is calculated in the following manner:

$$\frac{\text{(Population} * 20\%) + \text{(Population below 401\% FPL} * 40\%) + \text{(Uninsured} * 40\%)}{\text{(WA Population} * 20\%) + \text{(WA Population below 401\% FPL} * 40\%) + \text{(WA Uninsured} * 40\%)} \times 100$$

Table 1: Summary of Index Components

County	Portion of WA Total Population	Portion of WA Population Below 251% FPL	Portion of WA Population Below 401% FPL	Portion of WA Uninsured
King	30.3%	25.4%	26.1%	25.3%
Pierce	11.5%	11.4%	11.6%	11.2%
Snohomish	10.2%	8.5%	9.2%	10.0%
Spokane	7.2%	8.7%	8.2%	6.5%
Clark	6.0%	5.8%	6.0%	5.9%
Thurston	3.8%	3.6%	3.7%	2.9%
Kitsap	3.7%	3.5%	3.7%	3.4%
Yakima	3.1%	4.0%	3.7%	7.2%
Whatcom	3.0%	3.5%	3.4%	2.9%
Benton	2.4%	2.4%	2.4%	2.5%
Skagit	1.8%	1.8%	1.9%	2.0%
Cowlitz	1.5%	1.9%	1.8%	1.8%
Island	1.3%	1.2%	1.3%	0.7%
Clallam	1.2%	1.5%	1.4%	1.1%
Grant	1.1%	1.5%	1.4%	2.0%
Lewis	1.1%	1.5%	1.4%	1.1%
Grays Harbor	1.1%	1.5%	1.3%	1.3%
Chelan	1.0%	1.2%	1.2%	1.6%
Mason	0.8%	1.0%	1.0%	1.0%
Franklin	0.8%	1.0%	1.0%	1.8%
Walla Walla	0.8%	1.0%	1.0%	0.9%
Stevens	0.7%	0.9%	0.8%	0.7%
Kittitas	0.6%	0.8%	0.8%	0.7%
Okanogan	0.6%	0.9%	0.8%	1.1%
Whitman	0.6%	0.8%	0.7%	0.5%
Jefferson	0.6%	0.7%	0.6%	0.5%
Douglas	0.5%	0.6%	0.6%	0.8%
Pacific	0.4%	0.5%	0.5%	0.3%
Asotin	0.3%	0.5%	0.4%	0.3%

Klickitat	0.3%	0.5%	0.4%	0.4%
Remaining 9 Counties	1.4%	1.8%	1.7%	1.5%

Table 2: Indices Analysis - Measure of Washington Navigator Needs by County

County	Portion of WA Population	Simple Needs Based Index	Broad Needs Based Index
King	30.3%	25.4	27.4
Pierce	11.5%	11.3	11.5
Snohomish	10.2%	9.2	9.8
Spokane	7.2%	7.7	7.5
Clark	6.0%	5.8	6.0
Thurston	3.8%	3.3	3.6
Kitsap	3.7%	3.4	3.6
Yakima	3.1%	5.4	4.3
Whatcom	3.0%	3.2	3.1
Benton	2.4%	2.4	2.4
Skagit	1.8%	1.9	1.9
Cowlitz	1.5%	1.8	1.7
Island	1.3%	1.0	1.2
Clallam	1.2%	1.3	1.3
Grant	1.1%	1.7	1.5
Lewis	1.1%	1.3	1.2
Grays Harbor	1.1%	1.4	1.3
Chelan	1.0%	1.4	1.2
Mason	0.8%	1.0	0.9
Franklin	0.8%	1.3	1.1
Walla Walla	0.8%	1.0	0.9
Stevens	0.7%	0.8	0.7
Kittitas	0.6%	0.8	0.7
Okanogan	0.6%	1.0	0.8
Whitman	0.6%	0.7	0.6
Jefferson	0.6%	0.6	0.6
Douglas	0.5%	0.7	0.6
Pacific	0.4%	0.4	0.4
Asotin	0.3%	0.4	0.4
Klickitat	0.3%	0.4	0.4
Remaining 9 Counties	1.4%	1.6	1.5

Preliminary Conclusions

Overall, the portion of the state population in each county does not vary much from the measures in the indices. However, we have highlighted in red several counties in the tables above that may present notable differences between overall population and the different measures. For example, King county has about 30% of the State's population, but about 25% of the state's population in the selected FPL categories and about 25% of the state's uninsured population. Washington may wish to allocate King county 25% of the state's Navigator resources and funding, instead of allocating 30% based on population. Another county that stands out is Yakima, which has 3.1% of the state's population, but 7.2% of the state's uninsured. Yakima's population of uninsured people is significantly higher relative to the county's overall population. When allocating Navigator resources to Yakima, Washington may wish to take this difference into consideration.

In determining a methodology to allocate Navigator resources to each county, Washington should decide whether allocating simply based on overall population distribution is the most logical approach, or whether the differences shown in our indices and measures justify a different methodology or county specific adjustments.

Additional Measures

The following section includes data used to calculate the indices and examines additional measures which may be relevant to Navigator resource allocation decisions:

Household Population by Federal Poverty Level

Table 3: Household Population by Federal Poverty Level

County	Total Households	% of State's Total Households	Households 0 - 138% FPL	% of State Households 0 - 138% FPL	Households 139 - 250% FPL	% of State Households 139 - 250% FPL	Households 251 - 400% FPL	Percent of State Households 251 - 400% FPL
King	781,977	30.34%	128,300	25.17%	157,315	25.63%	138,336	27.58%
Pierce	295,554	11.47%	55,178	10.82%	72,613	11.83%	60,216	12.01%
Snohomish	263,931	10.24%	39,095	7.67%	56,850	9.26%	53,889	10.75%
Spokane	184,590	7.16%	46,255	9.07%	51,014	8.31%	36,457	7.27%
Clark	155,042	6.02%	27,074	5.31%	37,679	6.14%	33,533	6.69%
Thurston	98,491	3.82%	17,796	3.49%	22,391	3.65%	20,481	4.08%
Kitsap	95,758	3.72%	16,150	3.17%	23,226	3.78%	20,200	4.03%
Yakima	79,075	3.07%	22,354	4.38%	22,943	3.74%	15,266	3.04%
Whatcom	78,186	3.03%	19,625	3.85%	20,072	3.27%	15,398	3.07%

Benton	62,038	2.41%	12,337	2.42%	14,885	2.42%	11,030	2.20%
Skagit	45,253	1.76%	9,034	1.77%	11,175	1.82%	10,439	2.08%
Cowlitz	39,441	1.53%	10,140	1.99%	11,342	1.85%	7,673	1.53%
Island	32,976	1.28%	5,865	1.15%	8,177	1.33%	7,276	1.45%
Clallam	30,987	1.20%	8,207	1.61%	9,014	1.47%	6,269	1.25%
Grant	29,427	1.14%	8,291	1.63%	8,397	1.37%	5,907	1.18%
Lewis	29,290	1.14%	7,962	1.56%	8,369	1.36%	6,114	1.22%
Grays Harbor	28,191	1.09%	7,801	1.53%	8,740	1.42%	5,383	1.07%
Chelan	26,676	1.04%	6,040	1.18%	7,684	1.25%	5,481	1.09%
Mason	21,808	0.85%	5,619	1.10%	5,627	0.92%	4,671	0.93%
Franklin	21,422	0.83%	5,004	0.98%	6,104	0.99%	4,854	0.97%
Walla Walla	21,367	0.83%	5,641	1.11%	6,047	0.99%	3,833	0.76%
Stevens	17,404	0.68%	4,912	0.96%	5,127	0.84%	3,132	0.62%
Kittitas	16,619	0.64%	5,230	1.03%	4,200	0.68%	2,857	0.57%
Okanogan	15,747	0.61%	5,394	1.06%	4,458	0.73%	2,857	0.57%
Whitman	15,717	0.61%	6,105	1.20%	3,446	0.56%	2,535	0.51%
Jefferson	14,194	0.55%	3,794	0.74%	3,991	0.65%	2,632	0.52%
Douglas	13,802	0.54%	2,882	0.57%	4,187	0.68%	2,867	0.57%
Pacific	9,667	0.38%	2,844	0.56%	3,059	0.50%	1,771	0.35%
Asotin	8,977	0.35%	2,368	0.46%	2,897	0.47%	1,917	0.38%
Klickitat	8,405	0.33%	2,761	0.54%	2,574	0.42%	1,362	0.27%
San Juan	7,986	0.31%	1,805	0.35%	2,118	0.35%	1,768	0.35%
Adams	5,599	0.22%	1,579	0.31%	1,824	0.30%	1,059	0.21%
Pend Oreille	5,511	0.21%	1,970	0.39%	1,477	0.24%	831	0.17%
Lincoln	4,649	0.18%	1,133	0.22%	1,446	0.24%	954	0.19%
Skamania	4,514	0.18%	1,024	0.20%	1,289	0.21%	991	0.20%
Ferry	2,706	0.10%	1,003	0.20%	763	0.12%	483	0.10%
Wahkiakum	1,763	0.07%	420	0.08%	711	0.12%	316	0.06%
Columbia	1,732	0.07%	541	0.11%	399	0.06%	317	0.06%
Garfield	903	0.04%	270	0.05%	260	0.04%	169	0.03%
Washington State Total	**2,577,375**	**100.00%**	**509,803**	**100.00%**	**613,890**	**100.00%**	**501,524**	**100.00%**

Portion of a County's Household Population by FPL

In the previous analysis, we measured a county's population, in each FPL category, as a percent of the State's total population. An additional potentially important measure is to analyze the population in each FPL category of a county as a percent of the county's total population.

Table 4: Portion of County's Household Population by FPL

County	% of County Population in 0 - 138% FPL	% of County Population in 139 - 250% FPL	% of County Population in 251 - 400% FPL	% of County Population Greater than 400% FPL	Total (check)
Adams	28%	33%	19%	20%	100%
Asotin	26%	32%	21%	20%	100%
Benton	20%	24%	18%	38%	100%
Chelan	23%	29%	21%	28%	100%
Clallam	26%	29%	20%	24%	100%
Clark	17%	24%	22%	37%	100%
Columbia	31%	23%	18%	27%	100%
Cowlitz	26%	29%	19%	26%	100%
Douglas	21%	30%	21%	28%	100%
Ferry	37%	28%	18%	17%	100%
Franklin	23%	28%	23%	25%	100%
Garfield	30%	29%	19%	23%	100%
Grant	28%	29%	20%	23%	100%
Grays Harbor	28%	31%	19%	22%	100%
Island	18%	25%	22%	35%	100%
Jefferson	27%	28%	19%	27%	100%
King	16%	20%	18%	46%	100%
Kitsap	17%	24%	21%	38%	100%
Kittitas	31%	25%	17%	26%	100%
Klickitat	33%	31%	16%	20%	100%
Lewis	27%	29%	21%	23%	100%
Lincoln	24%	31%	21%	24%	100%
Mason	26%	26%	21%	27%	100%
Okanogan	34%	28%	18%	19%	100%
Pacific	29%	32%	18%	21%	100%
Pend Oreille	36%	27%	15%	22%	100%
Pierce	19%	25%	20%	36%	100%
San Juan	23%	27%	22%	29%	100%
Skagit	20%	25%	23%	32%	100%
Skamania	23%	29%	22%	27%	100%
Snohomish	15%	22%	20%	43%	100%
Spokane	25%	28%	20%	28%	100%
Stevens	28%	29%	18%	24%	100%
Thurston	18%	23%	21%	38%	100%
Wahkiakum	24%	40%	18%	18%	100%

Walla Walla	26%	28%	18%	27%	100%
Whatcom	25%	26%	20%	30%	100%
Whitman	39%	22%	16%	23%	100%
Yakima	28%	29%	19%	23%	100%
Washington State	**20%**	**24%**	**19%**	**37%**	**100%**

Uninsured

Table 5: Uninsured Population

County	% of State Households	Number of Uninsured	Percent of Washington State Uninsured
King	30.34%	221,843	25.30%
Pierce	11.47%	98,542	11.24%
Snohomish	10.24%	87,949	10.03%
Yakima	3.07%	63,151	7.20%
Spokane	7.16%	56,724	6.47%
Clark	6.02%	51,937	5.92%
Kitsap	3.72%	29,408	3.35%
Thurston	3.82%	25,618	2.92%
Whatcom	3.03%	25,202	2.87%
Benton	2.41%	21,660	2.47%
Grant	1.14%	17,822	2.03%
Skagit	1.76%	17,184	1.96%
Franklin	0.83%	15,893	1.81%
Cowlitz	1.53%	15,483	1.77%
Chelan	1.04%	14,129	1.61%
Grays Harbor	1.09%	11,494	1.31%
Clallam	1.20%	9,771	1.11%
Lewis	1.14%	9,733	1.11%
Okanogan	0.61%	9,412	1.07%
Mason	0.85%	9,143	1.04%
Walla Walla	0.83%	8,167	0.93%
Douglas	0.54%	6,708	0.77%
Island	1.28%	6,472	0.74%
Stevens	0.68%	6,352	0.72%
Kittitas	0.64%	6,083	0.69%
Whitman	0.61%	4,482	0.51%

Jefferson	0.55%	4,263	0.49%
Klickitat	0.33%	3,120	0.36%
Pacific	0.38%	3,031	0.35%
Asotin	0.35%	3,004	0.34%
Remaining 9 Counties	1.37%	12,904	1.47%
Washington State Total	**100%**	**876,684**	**100.00%**

Language

Navigators may require additional resources to meet the language needs of Washington residents who do not speak fluent English. We have evaluated estimates from the American Community Survey to compare the language characteristics of each Washington county. The ACS provides estimates for the number of people over five years old who speak English less than "very well" and speak one of the following languages; Spanish, other Indo-European, Asian and Pacific Islander, or Other language. We analyze this information as percent of a county's total population and the following table presents Washington counties in order of least to greatest English-speaking capability.

Table 6: Language as a Percent of County Population

County	% of County that Speaks English "Very Well"	% of County that Speaks English LESS THAN "Very Well"	% of County that speaks the following languages at home and speak English less than "Very Well"			
			Spanish	Other Indo-European Languages	Asian and Pacific Islander languages	Other Languages
Franklin	69.77%	30.23%	27.88%	1.26%	1.01%	0.08%
Adams	74.05%	25.95%	25.10%	0.11%	0.49%	0.25%
Yakima	81.16%	18.84%	18.27%	0.15%	0.33%	0.09%
Grant	82.89%	17.11%	15.90%	0.70%	0.50%	0.01%
Douglas	87.57%	12.43%	12.19%	0.15%	0.09%	0.00%
King	89.04%	10.96%	3.10%	1.88%	5.14%	0.84%
Chelan	89.57%	10.43%	9.84%	0.29%	0.19%	0.11%
Walla Walla	91.30%	8.70%	8.13%	0.12%	0.42%	0.03%
Benton	91.58%	8.42%	6.60%	0.65%	1.05%	0.12%
Snohomish	92.10%	7.90%	2.87%	1.48%	3.17%	0.38%
Okanogan	93.42%	6.58%	6.14%	0.35%	0.06%	0.03%
Clark	93.73%	6.27%	2.06%	2.58%	1.47%	0.17%
Skagit	93.74%	6.26%	5.17%	0.43%	0.63%	0.03%
Pierce	94.33%	5.67%	2.22%	0.90%	2.48%	0.08%
Whatcom	95.22%	4.78%	2.01%	1.62%	0.90%	0.26%
Pacific	95.44%	4.56%	3.62%	0.11%	0.81%	0.02%
Mason	96.27%	3.73%	2.94%	0.34%	0.42%	0.03%

Lewis	96.28%	3.72%	3.14%	0.25%	0.24%	0.09%
Grays Harbor	96.33%	3.67%	2.81%	0.26%	0.57%	0.04%
Whitman	96.46%	3.54%	0.42%	0.73%	2.01%	0.39%
Thurston	96.54%	3.46%	1.13%	0.31%	1.97%	0.04%
Cowlitz	96.55%	3.45%	2.19%	0.52%	0.65%	0.08%
Clallam	96.64%	3.36%	1.80%	0.80%	0.66%	0.10%
Kittitas	96.67%	3.33%	2.14%	0.28%	0.82%	0.09%
Kitsap	96.69%	3.31%	1.30%	0.38%	1.57%	0.06%
Klickitat	96.69%	3.31%	3.12%	0.03%	0.16%	0.00%
Garfield	96.87%	3.13%	2.29%	0.00%	0.28%	0.56%
Spokane	97.20%	2.80%	0.72%	1.04%	0.89%	0.15%
San Juan	97.65%	2.35%	2.04%	0.15%	0.16%	0.00%
Island	97.90%	2.10%	0.59%	0.24%	1.23%	0.04%
Jefferson	98.44%	1.56%	0.65%	0.70%	0.17%	0.05%
Ferry	98.89%	1.11%	0.44%	0.00%	0.67%	0.00%
Skamania	98.93%	1.07%	0.72%	0.10%	0.14%	0.12%
Stevens	98.93%	1.07%	0.25%	0.73%	0.01%	0.07%
Pend Oreille	99.04%	0.96%	0.36%	0.07%	0.44%	0.09%
Wahkiakum	99.16%	0.84%	0.18%	0.42%	0.00%	0.24%
Asotin	99.18%	0.82%	0.29%	0.20%	0.34%	0.00%
Columbia	99.24%	0.76%	0.76%	0.00%	0.00%	0.00%
Lincoln	99.34%	0.66%	0.45%	0.14%	0.07%	0.00%
State Total	**92.14%**	**7.86%**	**3.74%**	**1.22%**	**2.57%**	**0.34%**

Relative to other counties in Washington, Franklin will require the greatest Navigator language-specific resources. About 30% of Franklin County residents do not speak English "very well". Spanish is the most prevalent language in Franklin of those who do not speak English, as 28% of the county speaks Spanish and does not speak English "very well".

The following table details the language population data utilized in the above analysis.

Table 7: Population over 5 years old that speak the following languages and speak English less than "very well"

		Population over 5 years old that Speaks the Following Languages at Home and Speak English LESS THAN "Very Well"			
County	Total Population over 5 yrs old	Spanish	Other Indo-European Languages	Asian and Pacific Islander languages	Other Languages
Adams	15,952	4,004	17	78	40
Asotin	20,133	58	40	68	0
Benton	154,897	10,230	1,011	1,622	185
Chelan	66,240	6,517	194	129	70
Clallam	67,406	1,216	538	446	66
Clark	385,641	7,926	9,949	5,660	654

Columbia	3,797	29	0	0	0
Cowlitz	94,696	2,073	496	620	79
Douglas	34,535	4,210	52	31	0
Ferry	7,033	31	0	47	0
Franklin	63,625	17,736	804	640	54
Garfield	2,138	49	0	6	12
Grant	77,490	12,320	544	384	9
Grays Harbor	67,984	1,912	175	385	25
Island	74,049	438	175	909	30
Jefferson	28,590	185	199	49	13
King	1,762,479	54,680	33,071	90,653	14,752
Kitsap	232,706	3,035	879	3,644	145
Kittitas	37,974	811	108	310	35
Klickitat	18,898	590	5	30	0
Lewis	70,222	2,204	174	172	62
Lincoln	9,983	45	14	7	0
Mason	56,140	1,652	190	238	16
Okanogan	37,585	2,309	133	21	10
Pacific	20,211	732	22	163	5
Pend Oreille	12,267	44	9	54	11
Pierce	728,649	16,158	6,543	18,037	550
San Juan	15,033	307	23	24	0
Skagit	107,789	5,569	463	679	35
Skamania	10,321	74	10	14	12
Snohomish	647,799	18,567	9,562	20,565	2,465
Spokane	431,952	3,115	4,506	3,848	641
Stevens	40,825	103	299	4	29
Thurston	229,021	2,596	721	4,523	94
Wahkiakum	3,788	7	16	0	9
Walla Walla	54,048	4,396	65	225	16
Whatcom	184,994	3,714	2,995	1,662	474
Whitman	41,895	174	305	842	163
Yakima	216,062	39,482	327	704	202
State Total	**6,134,847**	**229,298**	**74,634**	**157,493**	**20,963**

Race

While race is not likely an important measure in determining Navigator efforts, Navigators may wish to focus attention on certain cultures, such as American Indian and Alaska Natives, to meet their needs.

The following table shows population of race by county, for people considered to be one-race. Note that Washington's total population is 6,561,297 and the total one-race population is 6,289,158.

Table 8: Population by Race for people who consider themselves "One-race"

County	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race
Adams	11,598	35	287	128	6	5,192
Asotin	20,044	19	223	112	3	246
Benton	138,078	2,231	1,723	4,712	167	15,918
Chelan	63,623	242	927	494	64	4,085
Clallam	62,141	616	3,660	1,154	59	1,027
Clark	359,636	7,795	2,644	16,444	2,245	9,785
Columbia	3,671	0	127	22	0	39
Cowlitz	92,429	507	1,611	1,477	208	1,526
Douglas	28,206	175	325	270	29	7,018
Ferry	5,749	58	1,310	96	31	85
Franklin	41,590	1,598	723	1,382	3	23,656
Garfield	2,111	0	0	8	0	0
Grant	61,348	1,025	1,166	877	52	18,462
Grays Harbor	62,179	708	2,858	987	124	2,371
Island	67,933	1,520	566	3,194	379	1,084
Jefferson	27,015	272	571	288	9	235
King	1,330,812	112,588	14,401	266,435	13,379	57,608
Kitsap	205,605	6,905	3,776	11,859	2,122	3,834
Kittitas	35,971	262	631	840	0	1,245
Klickitat	18,079	14	874	149	0	544
Lewis	68,110	313	723	560	7	2,008
Lincoln	9,912	56	200	27	0	137
Mason	52,147	805	2,069	730	223	1,634
Okanogan	30,027	136	4,491	304	94	4,138
Pacific	18,528	98	333	393	4	1,010
Pend Oreille	11,732	19	522	109	0	76
Pierce	596,418	54,490	9,933	45,451	9,355	20,126
San Juan	14,778	101	135	205	25	91
Skagit	98,852	897	2,117	2,113	172	7,218
Skamania	9,934	8	256	97	9	369
Snohomish	560,694	15,586	8,874	59,692	2,797	18,991
Spokane	414,507	7,948	5,501	10,244	1,616	4,960
Stevens	38,820	215	1,971	286	69	167
Thurston	203,177	6,705	3,394	13,027	1,649	4,957

Wahkiakum	3,863	0	28	11	0	0
Walla Walla	49,159	924	608	923	144	4,682
Whatcom	171,611	2,177	5,445	7,274	311	3,376
Whitman	37,574	797	331	3,298	120	346
Yakima	171,506	2,040	9,878	2,099	231	43,171
Total Washington One-race Population	**5,199,167**	**229,885**	**95,212**	**457,771**	**35,706**	**271,417**

Household Population Density

Household population density can be a measure of the rural or urban environment of a county. Depending on whether Navigators are required to travel to provide in-person support, population density may be an important measure to consider.

To compare the difficulties Navigators may face while traveling, we have created a scoring system, called the Navigator Travel Score, to rank Washington counties based on traveling difficulty. A Navigator Travel Score is assigned to each county which is based on two measures, population density and land area, and is calculated as follows:

$$\frac{\text{Households per Square Mile}}{\text{Land Area}}$$

Theoretically, the lower the Navigator Travel Score the more difficult it will be for a Navigator to travel around the county to assist a given number of people. A Navigator will face the most difficulty working in a county that has low population density but high land area. The following table illustrates four different scenarios of population density and land area and a corresponding expected Navigator traveling difficulty level.

County Population Density and Land Area Characteristics		Navigator Traveling Difficulty
Population Density:	Lower than Average	High
Land Area:	Higher than Average	
Population Density:	Higher than Average	Medium
Land Area:	Higher than Average	
Population Density:	Lower than Average	Medium
Land Area:	Lower than Average	
Population Density:	Higher than Average	Low
Land Area:	Lower than Average	

In the next table we calculate the Navigator Travel Score and rank Washington counties from greatest to least in terms of Navigator traveling difficulty. To test whether the Navigator Travel Score rankings correspond to the four scenarios described above, the last two columns on the right side of the table indicate whether the county's population density and land area is higher or lower than the state's average. Note that the state's average population density in a county is 50.6 households per square mile and the average land area in a county is 1,704 square miles.

Table 9: County Ranking of Greatest to Least Navigator Traveling Difficulty

Rank	County	Households	Population Density (households per square mile)	Land Area (Square Miles)	Navigator Travel Score	Population Density compared to state average	Land Area compared to state average
1	Ferry	2,706	1.23	2,203	0.00056	Lower	Higher
2	Okanogan	15,747	2.99	5,268	0.00057	Lower	Higher
3	Lincoln	4,649	2.01	2,310	0.00087	Lower	Higher
4	Adams	5,599	2.91	1,925	0.00151	Lower	Higher
5	Skamania	4,514	2.73	1,656	0.00165	Lower	Lower
6	Garfield	903	1.27	711	0.00179	Lower	Lower
7	Columbia	1,732	1.99	869	0.00230	Lower	Lower
8	Klickitat	8,405	4.49	1,871	0.00240	Lower	Higher
9	Pend Oreille	5,511	3.94	1,400	0.00281	Lower	Lower
10	Stevens	17,404	7.02	2,478	0.00283	Lower	Higher
11	Chelan	26,676	9.13	2,921	0.00313	Lower	Higher
12	Kittitas	16,619	7.23	2,297	0.00315	Lower	Higher
13	Whitman	15,717	7.28	2,159	0.00337	Lower	Higher
14	Grant	29,427	10.98	2,680	0.00410	Lower	Higher
15	Douglas	13,802	7.59	1,819	0.00417	Lower	Higher
16	Yakima	79,075	18.41	4,295	0.00429	Lower	Higher
17	Jefferson	14,194	7.87	1,804	0.00436	Lower	Higher
18	Lewis	29,290	12.19	2,403	0.00507	Lower	Higher
19	Grays Harbor	28,191	14.82	1,902	0.00779	Lower	Higher
20	Clallam	30,987	17.83	1,738	0.01025	Lower	Higher
21	Pacific	9,667	10.37	933	0.01111	Lower	Lower
22	Walla Walla	21,367	16.82	1,270	0.01324	Lower	Lower
23	Franklin	21,422	17.25	1,242	0.01388	Lower	Lower
24	Skagit	45,253	26.14	1,731	0.01510	Lower	Higher
25	Whatcom	78,186	37.11	2,107	0.01761	Lower	Higher
26	Benton	62,038	36.48	1,700	0.02146	Lower	Lower
27	Asotin	8,977	14.11	636	0.02218	Lower	Lower
28	Mason	21,808	22.73	959	0.02369	Lower	Lower
29	Wahkiakum	1,763	6.69	263	0.02542	Lower	Lower

30	Cowlitz	39,441	34.59	1,140	0.03034	Lower	Lower
31	Spokane	184,590	104.66	1,764	0.05934	Higher	Higher
32	Snohomish	263,931	126.45	2,087	0.06058	Higher	Higher
33	Pierce	295,554	177.03	1,670	0.10604	Higher	Lower
34	King	781,977	369.63	2,116	0.17472	Higher	Higher
35	Thurston	98,491	136.42	722	0.18896	Higher	Lower
36	San Juan	7,986	45.92	174	0.26403	Lower	Lower
37	Clark	155,042	246.49	629	0.39187	Higher	Lower
38	Kitsap	95,758	242.46	395	0.61392	Higher	Lower
39	Island	32,976	158.20	208	0.75893	Higher	Lower

According to the Navigator Travel Score results, traveling will be the most difficult in Ferry, Okanogan, Lincoln, and Adams counties. The Navigator Travel Score rankings comport with our four expected scenarios in that counties with lower than average population density and higher than average land area rank at the top while counties with higher than average population density and lower than average land area rank at the bottom in terms of traveling difficulty. *Note that the Navigator Travel Score is not a proven mathematical approach and is a methodology we have designed to develop a ranking system for comparing traveling difficulty between counties. While we believe the results serve to adequately rank and compare counties, further analysis may need to be performed to determine a more precise measurement of traveling difficulty.*

The following table includes data used in the above analysis and is presented in order of greatest to least population density (households per square mile).

Table 10: Household Population Density

County	Households	Land Area (Square Miles)	Households Per Square Mile
King	781,977	2,116	369.63
Clark	155,042	629	246.49
Kitsap	95,758	395	242.46
Pierce	295,554	1,670	177.03
Island	32,976	208	158.20
Thurston	98,491	722	136.42
Snohomish	263,931	2,087	126.45
Spokane	184,590	1,764	104.66
San Juan	7,986	174	45.92
Whatcom	78,186	2,107	37.11
Benton	62,038	1,700	36.48
Cowlitz	39,441	1,140	34.59
Skagit	45,253	1,731	26.14
Mason	21,808	959	22.73
Yakima	79,075	4,295	18.41
Clallam	30,987	1,738	17.83

Franklin	21,422	1,242	17.25
Walla Walla	21,367	1,270	16.82
Grays Harbor	28,191	1,902	14.82
Asotin	8,977	636	14.11
Lewis	29,290	2,403	12.19
Grant	29,427	2,680	10.98
Pacific	9,667	933	10.37
Chelan	26,676	2,921	9.13
Jefferson	14,194	1,804	7.87
Douglas	13,802	1,819	7.59
Whitman	15,717	2,159	7.28
Kittitas	16,619	2,297	7.23
Stevens	17,404	2,478	7.02
Wahkiakum	1,763	263	6.69
Klickitat	8,405	1,871	4.49
Pend Oreille	5,511	1,400	3.94
Okanogan	15,747	5,268	2.99
Adams	5,599	1,925	2.91
Skamania	4,514	1,656	2.73
Lincoln	4,649	2,310	2.01
Columbia	1,732	869	1.99
Garfield	903	711	1.27
Ferry	2,706	2,203	1.23
State Total	**2,577,375**	**66,456**	**38.78**